

First Look at YSOs Using Closure Phases

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We report the first closure phase results for Young Stellar Objects using an infrared interferometer. The 3-telescope IOTA Interferometer is conducting a closure phase survey of Herbig Ae/Be stars, with high precision visibility and closure phase measurements made possible by the IONIC3 integrated optics combiner at H-band. Closure phases are quite sensitive to deviations from centrosymmetry, as would be expected for a tilted flared disk. For most sources, closure phases are consistent with zero indicating a high-level of centrosymmetry. Interpretation of these results depends on how resolved each circumstellar disk is and we attempt to quantify the maximum level of emission asymmetry in each source. A few sources do show signs of asymmetry and will be targets for a future aperture synthesis imaging campaign at IOTA.

